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Monthly Statistical Report

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SUMMARY

Domestic crude oil production's decline in 1989—nearly double the trend of the previous three years—was the largest ever experienced. Because of the fall in domestic output, which exceeded one half million B/D, and despite flat deliveries of petroleum products for the year, imports reached a ten-year high of nearly 8 million B/D. Although 1989 was the first year since 1985 to show only a marginal increase in petroleum deliveries, overall energy consumption is estimated to have continued to rise, but at a more moderate rate than in the previous two years.

Crude oil production's 553 thousand B/D, 6.8 percent drop was due not only to a more rapid falloff in lower 48 output but to a reversal in Alaska's previous upward trend. Alaskan production, which had been increasing almost every year since 1977, fell 140 thousand B/D or 7.0 percent in 1989. Although part of that decrease represents temporary declines due to maintenance work and traffic restrictions following the tanker accident last spring, the underlying decline trend for the year still appears to have been roughly 100 thousand B/D. Lower 48 production dropped by over 400 thousand B/D, compared with a 265 thousand B/D decline in 1988, and towards the end of the year had fallen to a level nearly 25 percent lower than in early 1986.

Imports continued to increase in 1989, and total imports as a percentage of domestic deliveries in 1989 reached 46.0 percent. This was nearly half again as large as the 31.5 percent share for 1985 and only slightly short of the 47.7 percent high set in 1977. Imports that year, however, were well above what was required for immediate needs, with an average of over 500 thousand B/D ending up in inventories over the year. If adjusted for such stock changes, imports' share in 1977 would have been slightly less, at 44.8 percent—and 1989's share, at 46.7 percent, would have set an all-time high.

Meanwhile, deliveries were essentially flat in 1989, contrasting with growth for the previous three years averaging over 3 percent. All major products experienced either smaller increases than in 1988 or slipped from increases to declines. Higher prices early in the year and slower economic growth led to a marginal decline in gasoline deliveries, versus a 1.8 percent increase the prior year. Distillate deliveries rose only about 1 percent, down from a nearly 5 percent increase in 1988. Kerosine jet fuel deliveries' previous strong growth continued to moderate, to 3.6 percent, while residual fuel oil deliveries reversed a 9 percent gain in 1988 with a 1.4 percent decline in 1989. Deliveries in the "other oils" category declined slightly in 1989 after five years of growth.

Although the effects of higher prices early in the year, along with slower economic growth, indicate a moderation in the growth of petroleum deliveries for 1989, it would not be surprising if final data for the year eventually show a somewhat larger increase than the current 0.1 percent. Department of Energy figures, which constitute ten out of the twelve months of total deliveries data used here, have for the previous three years been consistently revised upwards by from 0.7 to 0.9 percent when final data are released in the middle of the following year.

In contrast with deliveries for the year as a whole, December's were unusually strong due mainly to extraordinarily severe weather—the coldest December for the Northeast in more than seventy years—and the consequent surge in demand for heating fuels and fuels for electrical generation peaking units. Distillate deliveries, in particular, jumped nearly half a million B/D or 13 percent from a year ago. At more than 4 million B/D, December's distillate deliveries were the highest for that month since 1978, a time when the normal heating oil demand base was 35-40 percent higher than currently.

In response, December refinery production of distillate rose to the highest level for the month since 1978. This, combined with relatively strong imports, particularly towards the end of the month, and an above-normal inventory draw, resulted in supplies which were apparently adequate for consumers' needs, despite difficulties in wholesale distribution in some areas in the face of the unprecedented leap in demand.

In large part due to unusually strong deliveries, estimated at roughly 1.5 million B/D above the recent trend, the decline for total stocks was roughly four times the 20 million barrel average of recent Decembers. Distillate stocks fell 14 million barrels to 108 million barrels, down 16 million barrels from a year ago although still more than 20 million barrels above the estimated minimum operating level.

API ESTIMATES

	DECEMBER		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	19.4	5.6	17.3	0.1
Crude production[a]	7.2	(8.7)	7.6	(6.8)
Total imports[a]	8.1	4.6	8.0	8.2
Stocks (million bbl)[a]	989	(4.7)	na	na

Note: For layout purposes, the graphs of monthly data which normally appear with the text have been moved to the end of this month's Report.

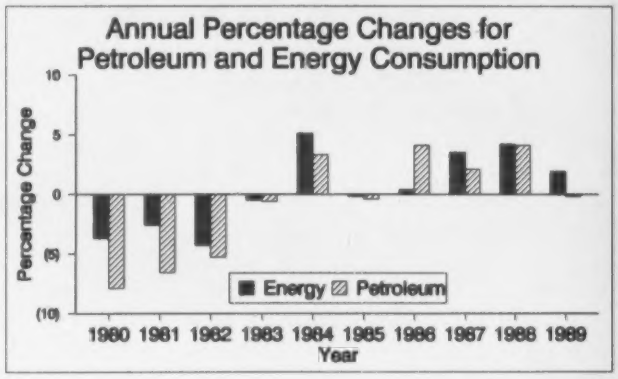
PRODUCT SUPPLIED [1]

Energy

ENERGY GROWS, BUT NOT PETROLEUM. Total energy consumption in 1989 is estimated to have risen about 1.9 percent over that of 1988, down from the 3.5 to 4 percent growth of the previous two years. The main source of the increase was natural gas, for which use is estimated to have risen about 6 percent. Coal usage is estimated to have increased only slightly, and petroleum was nearly flat. "Other" increased due to a partial recovery in hydro generation; nuclear power was roughly only even compared with a year ago due to greater than usual downtime at nuclear plants early in the year.

Natural gas increased its share of total energy to about 24 percent, reversing the ranking of the previous three years when coal's share had exceeded that of natural gas. Petroleum's share is estimated to have declined for the third year in a row to about 42 percent, compared with 43.4 percent in 1986. In 1977, before the conservation and fuel switching of the late 1970s and early 1980s, petroleum's share had been as high as 48.7 percent.

With economic growth for the year estimated at a little less than 3 percent, energy use per dollar of economic output, one measure of energy efficiency in the economy, is likely to have decreased slightly in 1989 after remaining nearly level during the previous three years. It should be noted, however, that current energy data on which these estimates are based are preliminary and incomplete. "Total energy" follows the Department of Energy's definition which excludes wood, solar, and other energy forms except what is consumed to supply the electric power grid; data on other usage are not easily available. Data for most major energy sources are not currently available for the full year, and past experience has shown that the preliminary data now available can be revised substantially.



ESTIMATED ENERGY CONSUMPTION AND SHARES BY TYPE

Consumption (Quadrillion BTU Annually)

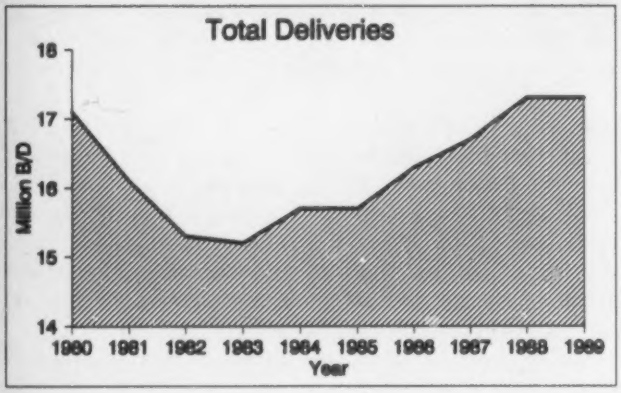
	Coal	Natural Gas	Petroleum	Other	Total
1988	18.7	18.5	34.2	8.7	80.1
1989	18.9	19.7	34.1	8.9	81.6
Change	+0.2	+1.2	-0.1	+0.2	+1.5
Percent Change	+0.7%	+6.4%	-0.2%	+3.1%	+1.9%

Market Shares (Percent)

1988	23.4	23.2	42.7	10.7	100.0
1989	23.1	24.2	41.8	10.9	100.0
Percentage point change in share	-0.3	+1.0	-0.9	+0.2	

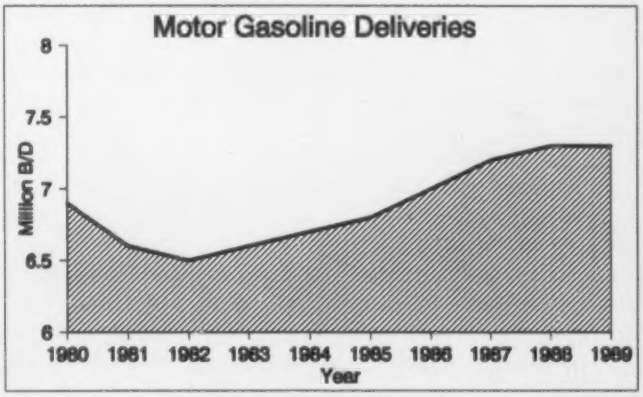
Note: Figures rounded independently; calculations based on unrounded data. Because 1988 was a leap year, the percentage change for petroleum on an annual basis differs from that computed on a daily basis.

Sources: Department of Energy, API estimates.



points, roughly double the size of the revisions of the previous two years. Despite the uncertainties, deliveries data, travel estimates, and economic fundamentals all point to weaker gasoline deliveries for the past year.

Leaded gasoline's market share dropped from 18 percent in 1988 to an average 11 percent in 1989; in the latter part of the year it slipped below 10 percent. The decline of leaded gasoline



has come not only as older vehicles using leaded fuel continue to be retired from the fleet but as midgrade unleaded has grown as a substitute for regular leaded in many markets. The decline in leaded fuel's share was largely balanced by the growth in shares for midgrade and regular unleaded, estimated at 7 percent and 59 percent, respectively, for 1989.

However, premium unleaded's share, which had been making 2 to 3 percentage point gains in each of the past three years, only held steady at 23 percent in 1989. Premium, which had lost significant market share in the first part of the year in apparent response to higher retail gasoline prices at that time, has since been regaining some of that lost ground.

December's gasoline deliveries, contrary to the declines of recent previous months, increased 0.8 percent versus the previous December. The month's unusually strong deliveries were roughly 200 thousand B/D above the recent trend, suggesting that purchases may have been greater than actual consumption.

Gasoline

DELIVERIES FLAT FOR THE YEAR. Gasoline deliveries were essentially flat in 1989, followng six years of uninterrupted, though moderate, growth. Since 1986, when a major decline in world petroleum prices led to a 25 percent annual average drop in retail gasoline prices and stronger growth in gasoline consumption, gasoline deliveries' annual increases had been slipping year by year. But gasoline deliveries' growth in 1989 fell below what would have been indicated by that trend. Gasoline deliveries had grown 3.0 percent in 1986, 2.4 percent the following year, and 1.8 percent in 1988. For 1989, deliveries decreased by 0.2 percent.

The weakness in the year's gasoline deliveries was apparently due to the combined effects of higher prices earlier in the year, coupled with slower economic growth, particularly in the latter part of the year. Retail prices rose about 20 cents per gallon from January to March, attributed largely to a lagged response to the earlier rise in crude oil costs, then drifted downwards by about 12 cents by December.

Though the higher prices likely had a slowing effect on gasoline demand earlier in the year, by year-end, retail prices were, on an inflation-adjusted basis, only 2 to 3 percent above the level of one year earlier. But slower economic growth—dropping from 4.4 percent in 1988 to around 3 percent for 1989 as a whole and less than that in the second half—also apparently put a drag on gasoline demand.

Corresponding with the weakening in gasoline deliveries growth, travel increases slipped in 1989 as well—from the 5.3 percent now calculated for 1988 to about 3 percent for 1989. If the improvement in the existing fleet's fuel efficiency was 1.5 to 2 percent, 1989's increase in travel might suggest that consumption actually increased slightly in 1989. Since Department of Energy data on gasoline deliveries, to which API estimates are keyed, have been regularly revised upwards by 0.2 to 0.3 percent in recent years, this further suggests that deliveries might have been slightly stronger than current data show.

However, travel data are subject to uncertainty as well, as evident in the substantial revision in 1988's growth estimate. Before revision to 5.3 percent, that year's growth in miles traveled has been calculated at 3.5 percent; the growth rate as now calculated represents an upward revision of 1.8 percentage

Distillates

STRONG FOR DECEMBER, SLOWER RISE FOR THE YEAR. December's bitterly cold weather—the most severe December for the Northeast since 1917—led to an unprecedented surge in the demand for heating oil and other distillates for the month. But although December's distillate deliveries jumped 13 percent or over 460 thousand B/D versus one year earlier, for the year as a whole they rose only 1.1 percent.

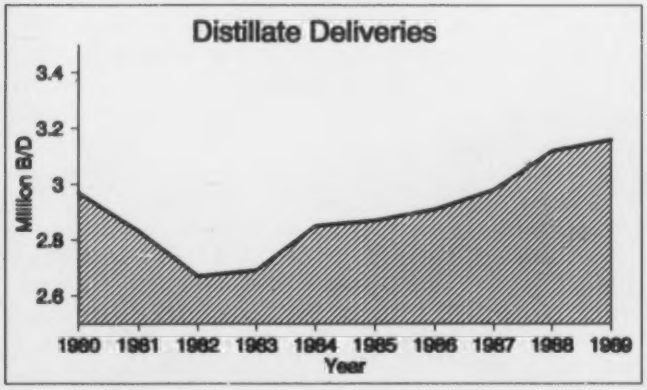
December's severe weather, averaging more than 30 percent colder than normal, bolstered heating oil consumption by at least an estimated 300 thousand B/D. Additional demand from electric utilities—generation east of the Rockies jumped 13 percent versus one year earlier for December and averaged 20 percent above a year ago in the last two weeks of the month—is estimat-

ed to have added at least another 100 thousand B/D. This was due not only to weather-related domestic demand for electricity, but to the need to substitute for natural gas diverted to residential users and to meet higher electricity demand from Canada.

As a result of these developments, deliveries of distillate fuel oil (which is consumed both as heating oil and as diesel fuel) increased to more than 4 million B/D, the highest December level since 1978—a year when heating oil demand was normally 35-40 percent higher than in more recent times. With refinery production setting recent-year records, imports relatively strong, and an above-average draw from primary stocks, adequate supplies apparently reached consumers, despite difficulties in wholesale distribution in some areas in the face of the unprecedented surge in demand.

For the year as a whole, distillate deliveries' increase of about 1 percent was down substantially from the previous year's nearly 5 percent increase. Though this past December's deliveries jump by itself would have been enough to add more than a percentage point to 1989's annual deliveries increase, it was partially counterbalanced by unusually mild weather in the first quarter. Thus, the increase for the year as a whole mainly reflects growth, however modest, in the non-heating portion of distillate demand.

The slowing in the growth of the economy is believed to have led to some slackening in the growth of industrial and transportation use. On-highway diesel, which had increased by an average 5-6 percent for the previous two years, is believed to have risen only about 3 percent in 1989, though it was still the main contributor to overall distillate fuel oil growth for the year. Rail traffic was off marginally for the year, and the net change in consumption due to the remaining sectors is estimated to be small.



Residual Fuel Oil

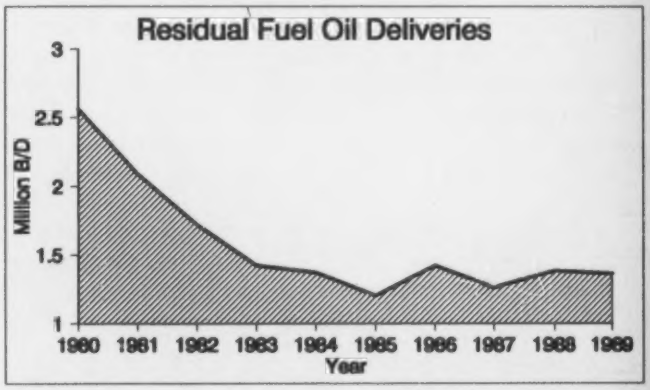
DOWN SLIGHTLY IN 1989.

In a fashion seemingly uncharacteristic of the usual wide swings, residual fuel oil's decline in deliveries averaged only 1.4 percent in 1989. Annual swings in deliveries had run from 9 to 19 percent in eight out of nine of the previous years.

However, those swings, mostly related to fuel switching, mask an apparent stability over the past seven years in the highs and lows of residual fuel oil deliveries, which have remained in the roughly 1.2 to 1.4 million B/D range. Conversely, 1989's relatively small annual change masks wider swings in deliveries within the year.

For the first half, residual fuel oil deliveries were up 4.2 percent, with strong purchases from electric utilities, in part because of greater than usual downtime for nuclear generation. Specifically, first-half purchases of heavy fuel oil by electric utilities were up 180 thousand B/D or by more than one third versus one year earlier. Residual fuel oil deliveries in the second half fell 6.7 percent, with switching to natural gas for much of the period contributing to the decline.

Thus, most of residual fuel oil's swings in 1989 were apparently the result of fuel switching in the electric utility and industrial sectors, which account for roughly two thirds of residual fuel oil consumption. Bunker fuel sales, by contrast, are believed to have been relatively stable for the year as a whole, though likely picking up in the latter part of the year as competition from high residual fuel oil demand in Europe apparently shifted some bunker purchases to U.S. ports.



Kerosine Jet Fuel

GROWTH CONTINUES TO MODERATE IN 1989.

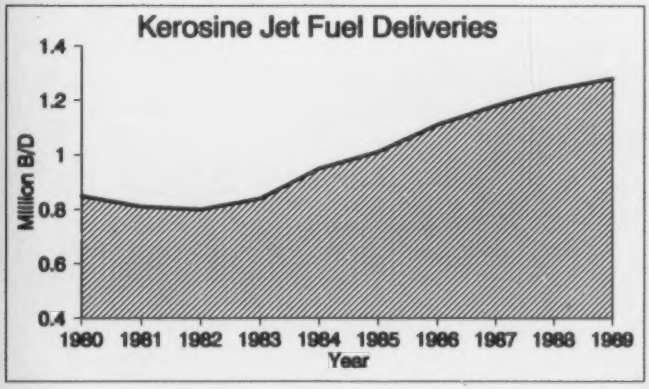
Corresponding with the moderation for deliveries of other petroleum products, growth in deliveries of kerosine jet fuel also slowed in 1989. The year's increase of 3.6 percent continued the longer-term pattern of slippage in kerosine jet fuel's growth of the past several years. As recently as 1986, kerosine jet fuel deliveries had jumped 10 percent annually; the following year, growth was still a healthy 6.9 percent, slowing to 4.7 percent in 1988.

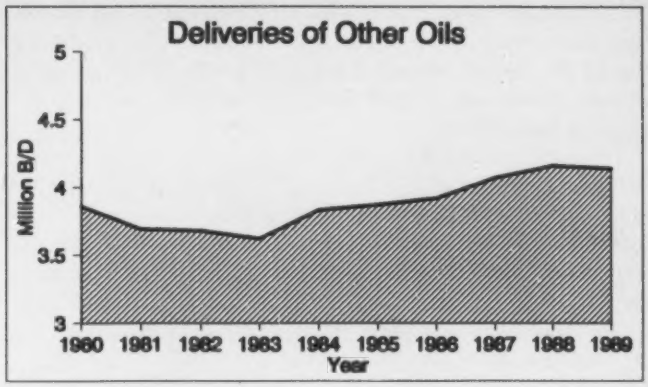
In fact, the past year's increase would have been only about 2 percent had it not been for the nearly 20 percent jump in December's deliveries related to the month's extremely cold weather. Apparently, product diverted to diesel fuel blending for cold-start properties as well as in generation and other uses appeared in the data as deliveries of kerosine jet fuel.

For 1989, smaller increases in air traffic corresponded with the moderation for most of the year in kerosine jet fuel's deliveries growth. Growth in miles flown had already slipped, year by year, from 12 percent in 1986 to 3.9 percent in 1988. For 1989,

air traffic is estimated to have increased only about 2 percent, half the rate of the previous year. Year-to-year increases were weak through mid-year, averaging only about 1 percent, but growth more recently appears to have recovered slightly to around 3 percent.

Although increases in kerosine jet fuel deliveries moderated for most of 1989, growth over a longer span has been substantial. Since 1982, kerosine jet fuel deliveries have risen by almost 60 percent or nearly half a million B/D, accounting for nearly a quarter of the increase in total deliveries since that time.





Other Oils

DECLINE REVERSES PRIOR UPWARD TREND. Deliveries of "other oils" dropped 0.4 percent in 1989, following five uninterrupted years of growth. Over that period, deliveries of "other oils" had risen 15 percent or about 540 thousand B/D, with many of the products within the category contributing to the increase.

The main factor leading to the decline was the drop in demand for petrochemical feedstocks, which started to become evident as early as the second quarter. Ethane deliveries, in particular, are estimated to have fallen 9 or 10 percent for the year as a whole, responding not only to weaker feedstock demand but to less favorable economics for much of the year compared with other feedstocks. Deliveries of petroleum liquid feedstocks (gasoil and naphtha), however, are also estimated to have fallen by around 3 percent for the year.

Propane deliveries for the year are estimated to have risen 4-5 percent; apparent deliveries of butanes are believed to have risen 8 to 9 percent for the year, boosted by streams diverted from gasoline blending as a result of more stringent state and federal requirements for gasoline vapor pressure. Lubricating oils and petroleum coke are estimated to have remained steady, while asphalt deliveries are estimated to have declined 2 to 3 percent. Production and consumption of refinery gas, which amounts to nearly 700 thousand B/D, is estimated to have risen 1 to 2 percent as a byproduct of increased refinery operations.

SUPPLY[1]

Production

LOWEST OUTPUT IN 26 YEARS. In 1989, U.S. crude oil production fell by the largest amount ever recorded for one year. The more than one-half million B/D, 6.8 percent decline was due not only to a more rapid drop in lower 48 output, but to a reversal of Alaska's upward trend of more than a decade. The year's dropoff nearly doubled the average 280 thousand B/D decline rate of the previous three years and resulted in a production level which, at 7.6 million B/D, was the lowest in 26 years.

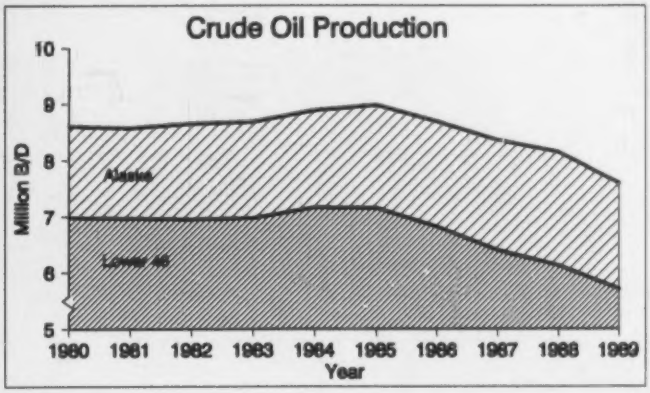
Alaskan production fell 140 thousand B/D or 7.0 percent. Although part of the decline reflected special factors, including restrictions in shipping operations related to the tanker accident in the spring and maintenance work later in the summer, a decline rate of around 100 thousand B/D appears to be a fair assessment of the underlying trend for the year.

Since the coming on stream of the Prudhoe Bay field in 1977, nearly a decade after the field's discovery, development work there and in other, smaller fields, had kept Alaskan production on the rise in nine out of ten of the following years. From 1977 to 1980, production in that state rose by nearly 1.2 million B/D. Gains were smaller in following years, but annual increases of from 40 to 100 thousand B/D had still been common, bringing production for the state to over 2 million B/D in 1988.

With 1989's decline, however, Alaskan production slipped back to its level of three years earlier. Though projects to increment output in existing Alaskan fields have continued, any new exploration is likely to take many years to affect production levels. For each of the Prudhoe Bay, Kuparuk, and Endicott fields, for example, it took as much as a decade or more from discovery to the beginning of production to complete exploration, permitting, and development work.

Production in the lower 48 fell more than 400 thousand B/D in 1989, versus about 265 thousand B/D the prior year. By the latter part of the year, the more rapid decline had reduced output outside Alaska by nearly 25 percent, or 1.7 million B/D, compared with early 1986. This decline, along with the growth in imports, have brought the crude oil supply balance to where 1989's crude oil imports, at 5.8 million B/D, were slightly larger than lower 48 crude oil production of 5.7 million B/D.

December's production for the U.S. as a whole, hindered in some areas by severe winter weather, dipped by about 200 thousand B/D from November's level to 7.2 million B/D. Output for the month was nearly 700 thousand B/D or 9 percent below one year earlier.



Imports

TOTAL IMPORTS' SHARE REACHES 46 PERCENT.

Because of the more rapid decline in domestic crude oil production—and even with the lack of growth in deliveries—imports rose 600 thousand B/D or 8.2 percent in 1989, returning to levels not experienced since the late 1970s.

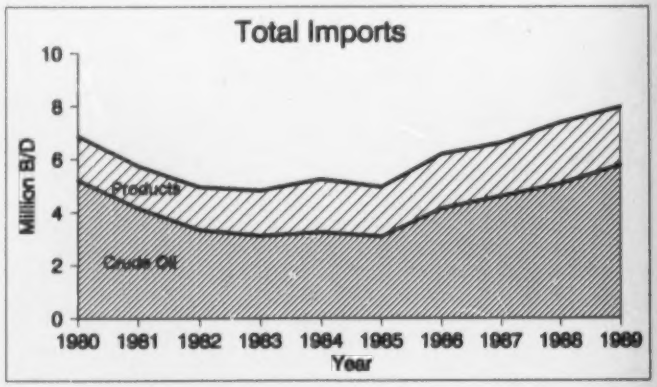
From the late 1970s, when imports were running at over 8 million B/D, through the early 1980s, price-induced conservation and fuel switching, combined with slower economic growth, had resulted in falling domestic demand. This, along with increased production from Alaska and steady-to-rising production in the lower 48, reduced imports to about 5 million B/D by 1985.

Since then, however, growing demand and declining domestic production have increased imports again—by fully 60 percent—to near the 8 million B/D level. Total imports' share of domestic deliveries has risen to 46.0 percent, nearly half again as large as its 31.5 percent share four years ago. The past year's import share was second only to the 47.7 percent level reached in 1977, when imports were bolstered by an annual inventory accumulation averaging more than 500 thousand B/D.

In fact, if adjusted for such inventory changes, total imports' share of domestic deliveries in 1989 would have reached an all-time high—46.7 percent, roughly 2 points greater than the 44.8 percent adjusted figure for 1977.

Although imports from Western Hemisphere sources still accounted for roughly 43 percent of supplies in 1989, imports from the Persian Gulf have continued to grow, reflecting that region's role as the major source of incremental supplies on world markets. Accounting for little more than 5 percent of U.S. imports in 1985, that region's share of U.S. imports grew to about 21 percent in 1989. However, because the U.S. must compete in world markets for its additional petroleum needs, a more accurate picture of the external supply situation is given by patterns in overall world trade in petroleum, of which the Middle East accounts for more than 40 percent.

Product imports in 1989 declined about 130 thousand B/D, or 5.6 percent, from 1988. This drop was more the result of comparison against unusually strong product imports in 1988 (up nearly 300 thousand B/D versus 1987) than of a reversal of the longer term, gradual upward trend. In fact, product imports in 1989 were more than 160 thousand B/D higher than in 1987. Compared with 1988, imports of gasoline and blending components were off about 40 thousand B/D, and residual fuel oil's decrease was similar. Distillate fuel oil imports, at 307 thousand B/D, were about even with the prior year. Kerosine jet fuel imports came close to reaching 100 thousand B/D for the first time.



Refinery Operations

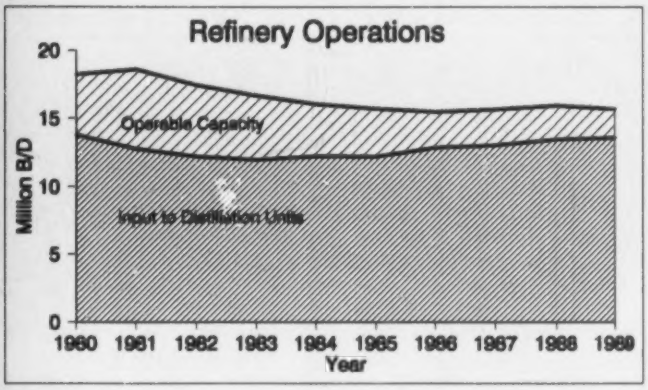
DISTILLATE OUTPUT SETS RECENT-YEAR HIGH FOR DECEMBER.

Corresponding with the moderation in the growth of domestic deliveries, the growth in overall refinery activity slowed as well in 1989. Input to distillation units averaged about 1 percent higher than in 1988, down from the average annual increase of 3.4 percent over the prior three years. Utilization as traditionally calculated rose to 86.5 percent for the year. However, for capacity in actual operation, the average was closer to 90.5 percent, about one point below the estimated annual high reached in the late 1970s.

Though the rise in input to distillation units for the year was small, increases in some downstream processing, particularly catalytic cracking, were greater. Department of Energy data show that fresh feed to catalytic cracking units increased 2.4 percent for the first ten months. For May through June, when refiners were making efforts to compensate for reduced blending of butane in order to meet more stringent federal and state requirements on gasoline vapor pressure for the summer, catalytic cracking units were apparently operating at or near capacity at an average of more than 6 percent above the same period in the previous year.

For December, the refining industry, in response to the surge in demand for heating oil, set a recent-year record for distillate fuel oil production. Output for the month rose 8 percent from one year earlier to over 3.3 million B/D—the highest for December since 1978—despite severe cold weather in the Gulf

and other problems which hindered operations at some refineries near the end of the month.



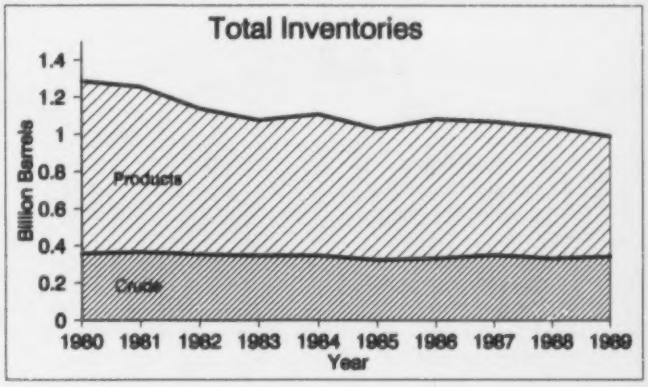
Inventories

STOCKS FALL 86 MILLION BARRELS FOR THE MONTH.

In large part because of abnormally strong deliveries, total inventories fell by an unusually large 86 million barrels in December, compared with a recent-year average of about 20 million barrels. Reduced refinery operations near the end of the month due to technical problems were also a contributing factor. Because of the large drawdown, year-end stocks were about 5 percent below one year ago.

Distillate stocks declined 14 million barrels, compared with recent previous Decembers which have averaged little change for the month. At nearly 435 thousand B/D, the draw was the largest for December in six years. Month-end stocks were 108 million barrels, 16 million barrels below a year ago but more than 20 million barrels above the National Petroleum Council's estimated minimum operating level of 85 million barrels.

Due to a combination of unusually strong deliveries and refinery emphasis on distillate production, gasoline inventories fell 9 million barrels, versus a recent-year average increase of about 4 million barrels. Gasoline stocks, at 214 million barrels, were down about 14 million barrels from last December.



1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 580 million barrels as of December 31, 1989).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	DECEMBER			YEAR-TO-DATE		
	1989[1]	1988[2]	% Change	1989[3R]	1988[2]	% Change
Products Supplied:						
Total motor gasoline	7,402	7,344	0.8	7,318	7,336	(0.2)
Finished leaded motor gasoline/*	489	1,124	(56.5)	826	1,341	(38.4)
Finished unleaded motor gasoline/*	6,913	6,220	11.1	6,492	5,995	8.3
Naphtha-jet	234	230	1.7	210	213	(1.4)
Kerosine-jet	1,575	1,314	19.9	1,280	1,236	3.6
Distillate fuel oil	4,022	3,560	13.0	3,155	3,122	1.1
Residual fuel oil	1,823	1,754	3.9	1,359	1,378	(1.4)
All other oils[4]	4,533	4,366	3.8	4,142	4,160	(0.4)
Reclassified[5]	-186	-202	(7.9)	-168	-161	4.3
Total domestic products supplied	19,403	18,366	5.6	17,296	17,284	0.1
Exports	789	1,008	(21.7)	824	815	1.1
Total products supplied	20,192	19,374	4.2	18,120	18,099	0.1
Supply:						
Domestic production:						
Crude oil[6]	7,249	7,942	(8.7)	7,587	8,140	(6.8)
Natural gas liquids	1,554	1,634	(4.9)	1,565	1,625	(3.7)
Other supply[7]	571	972	(41.3)	885	904	(2.1)
Total domestic supply	9,374	10,548	(11.1)	10,037	10,669	(5.9)
Imports:						
Crude oil, total[8]	5,932	5,203	14.0	5,786	5,055	14.5
Canadian	663	655	1.2	618	681	(9.3)
Other	5,269	4,548	15.9	5,168	4,374	18.2
Products, total	2,120	2,497	(15.1)	2,166	2,295	(5.6)
Residual fuel oil	556	975	(43.0)	604	644	(6.2)
Other	1,564	1,522	2.8	1,562	1,651	(5.4)
Total imports	8,052	7,700	4.6	7,952	7,350	8.2
Total supply	17,426	18,248	(4.5)	17,989	18,019	(0.2)
Stock change, all oils	-2,766	-1,126	*****	-131	-80	*****
Refinery Operations						
Input to crude oil distillation units	13,435	13,554	(0.9)	13,563	13,447	0.9
Operable capacity	15,591	15,919	(2.1)	15,671	15,928	(1.6)
Refinery utilization (%)[9]	86.2	85.1	1.3	86.5	84.4	2.5
Crude oil runs	13,278	13,381	(0.8)	13,401	13,246	1.2

Stocks (millions bbls.)	1989		1988[2]	% Change from	
	Dec. 31[10]	Nov. 31[10]	Dec. 31	Previous Month	Year Ago
Crude oil[8]	342.0	351.9R	330.4	(2.8)	3.5
Unfinished oils	104.6	111.9	99.9	(6.5)	4.7
Total motor gasoline/**	214.2	223.1	228.4	(4.0)	(6.2)
Finished leaded motor gasoline/*	17.4	18.2	40.2	(4.4)	(56.7)
Finished unleaded motor gasoline/*	160.0	166.9	149.7	(4.1)	6.9
Naphtha-jet	5.9	6.2	6.1	(4.8)	(3.3)
Kerosine-jet	35.6	44.3	37.7	(19.6)	(5.6)
Distillate fuel oil	108.0	121.5R	123.5	(11.1)	(12.6)
Residual fuel oil	43.3	52.6	44.6	(17.7)	(2.9)
All other oils	135.8	163.6R	167.1	(17.0)	(18.7)
Total all oils	989.4	1,075.1R	1,037.7	(8.0)	(4.7)

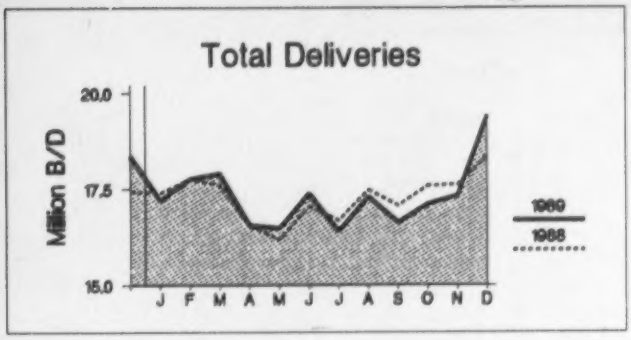
/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Source: January-October, DOE, November-December, API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 Includes lease condensate.
/7 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

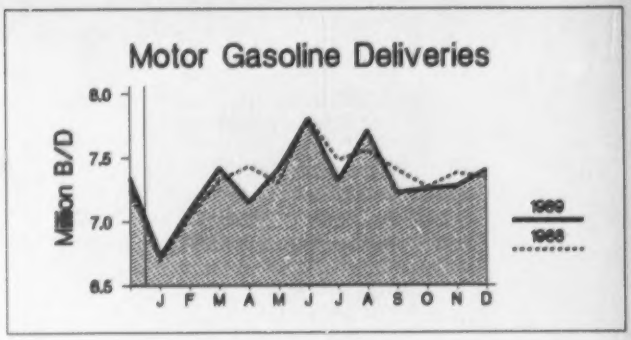
ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average In Thousands of 42 Gallon barrels)

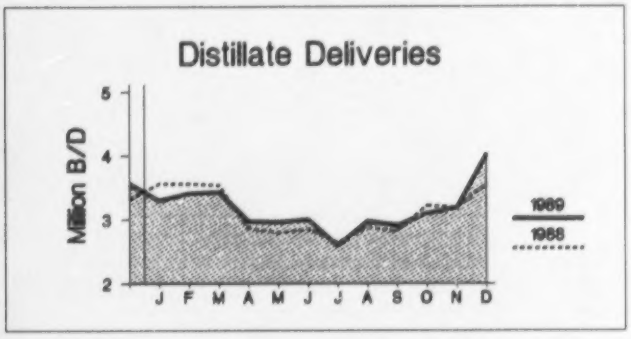
Products Supplied/Supply From Primary Storage	4TH QUARTER 1989[1]	1988[2]	% Change
Products Supplied:			
Total motor gasoline	7,312	7,331	(0.3)
Finished leaded motor gasoline/*	592	1,210	(51.1)
Finished unleaded motor gasoline/*	6,720	6,121	9.8
Naphtha-jet	224	221	1.4
Kerosine-jet	1,378	1,271	8.4
Distillate fuel oil	3,447	3,322	3.8
Residual fuel oil	1,481	1,534	(3.5)
All other oils[3]	4,307	4,337	(0.7)
Reclassified[4]	-181	-158	14.6
Total domestic products supplied	17,968	17,858	0.6
Exports	806	820	(1.7)
Total products supplied	18,774	18,678	0.5
Supply:			
Domestic production:			
Crude oil[5]	7,350	7,996	(8.1)
Natural gas liquids	1,514	1,654	(8.5)
Other supply[6]	718	932	(23.0)
Total domestic supply	9,582	10,582	(9.5)
Imports:			
Crude oil, total[7]	6,037	5,233	15.4
Canadian	605	672	(10.0)
Other	5,432	4,561	19.1
Products, total	2,060	2,472	(16.7)
Residual fuel oil	551	788	(30.1)
Other	1,509	1,684	(10.4)
Total imports	8,097	7,705	5.1
Total supply	17,679	18,287	(3.3)
Stock change, all oils	-1,095	-391	*****
Refinery Operations			
Input to crude oil distillation units	13,472	13,405	0.5
Operable capacity	15,630	15,925	(1.9)
Refinery utilization (%)[8]	86.2	84.2	2.4
Crude oil runs	13,323	13,222	0.8

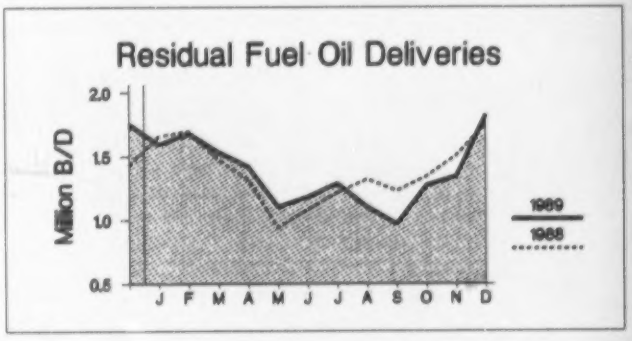
Stocks (millions bbls.)	4TH QUARTER 1989[9]	1988[2]	% Change
Crude oil[7]	342.0	330.4	3.5
Unfinished oils	104.6	99.9	4.7
Total motor gasoline/**	214.2	228.4	(6.2)
Finished leaded motor gasoline/*	17.4	40.2	(56.7)
Finished unleaded motor gasoline/*	160.0	149.7	6.9
Naphtha-jet	5.9	6.1	(3.3)
Kerosine-jet	35.6	37.7	(5.6)
Distillate fuel oil	108.0	123.5	(12.6)
Residual fuel oil	43.3	44.6	(2.9)
All other oils	135.8	167.1	(18.7)
Total all oils	989.4	1,037.7	(4.7)

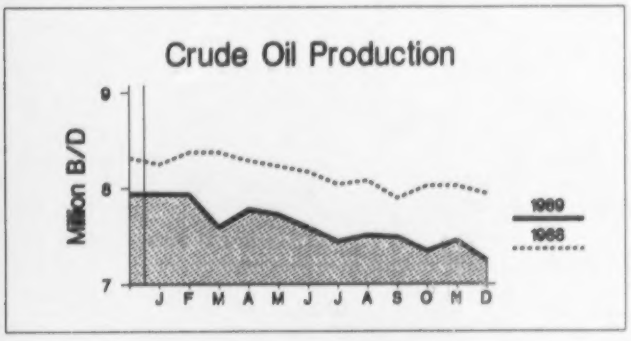
/1 Source: U.S. Department of Energy, October, November-December, API.
/2 Source: U.S. Department of Energy.
/3 Includes crude losses.
/4 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from total domestic products supplied.
/5 Includes lease condensate.
/6 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/7 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/8 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/9 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

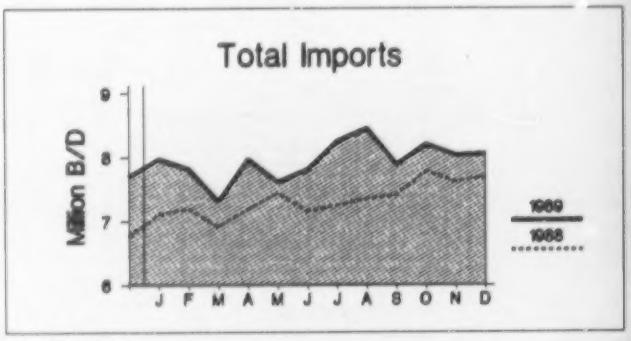

Total Deliveries
Million B/D
20.0
17.5
15.0
J F M A M J J A S O N D
1969
1968

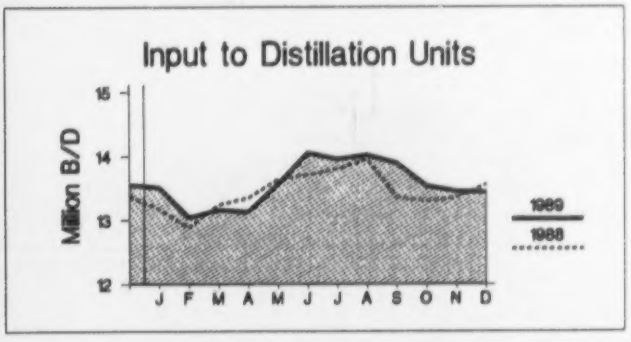

Motor Gasoline Deliveries
Million B/D
8.0
7.5
7.0
6.5
J F M A M J J A S O N D
1969
1968

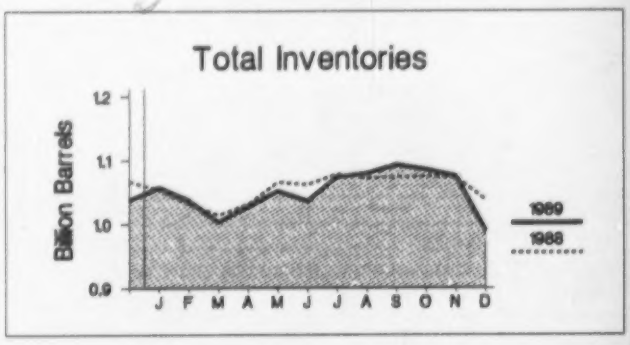

Distillate Deliveries
Million B/D
5
4
3
2
J F M A M J J A S O N D
1969
1968


Residual Fuel Oil Deliveries
Million B/D
2.0
1.5
1.0
0.5
J F M A M J J A S O N D
1969
1968


Crude Oil Production
Million B/D
9
8
7
J F M A M J J A S O N D
1969
1968


Total Imports
Million B/D
9
8
7
6
J F M A M J J A S O N D
1969
1968


Input to Distillation Units
Million B/D
15
14
13
12
J F M A M J J A S O N D
1969
1968


Total Inventories
Billion Barrels
1.2
1.1
1.0
0.9
J F M A M J J A S O N D
1969
1968

A2575-2

American Petroleum Institute
1220 L Street, Northwest
Washington, D.C. 20005

Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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JANUARY 1990

SUMMARY

In January, for the first month since 1977, total imports exceeded 9 million B/D—and as a percentage of domestic deliveries reached an all-time high of nearly 54 percent. In part, the month's strong imports reflected efforts to replenish supplies following December's extremely high demand. Imports were more than 1 million B/D higher than what would have been needed to supply January's deliveries in conjunction with typical inventory changes.

But although temporary factors contributed to January's surge in imports, these developments are also the product of longer-term trends, namely, the continued decline in domestic crude oil production and, until recently, the growth in consumption. Domestic crude oil production has fallen by nearly 20 percent or over 1.7 million B/D since early 1986—the result of reduced drilling and well servicing over the past four years. Oil well completions for 1989 were at only one third their level of 1985. Crude oil production continued to decline in January, falling by 430 thousand B/D or 5.5 percent.

January's refinery activity and product imports were both strong as efforts were made to replenish supplies following December's weather-related surge in demand. Distillate fuel oil output jumped over 6 percent from a year ago to its highest January level since the late 1970s. Distillate imports were up by nearly two thirds to over one half million B/D, the highest monthly level ever, while product imports as a whole rose 13 percent to nearly 2.9 million B/D.

Meanwhile, total deliveries, after jumping nearly 6 percent in December because of severely cold weather, in January reverted to the pattern of decline which has otherwise been evident since the middle of last year. Total deliveries fell 1.5 percent or 265 thousand B/D for the month versus one year ago. Reflecting January's warm weather, distillate deliveries fell by about 120 thousand B/D or 3.6 percent. Deliveries for residual fuel oil and the "other oils" category both resumed their year-to-year declines, with deliveries falling 8.3 percent and 6.1 percent, respectively. The only products to show increases were gasoline, which rose 2.2 percent, and kerosine jet fuel, up by 1.7 percent.

As a result of January's strong imports and weak deliveries, total inventories rose 33 million barrels—in sharp contrast to an average decline for the month of around 8 million barrels in recent past years. Distillate inventories rose contraseasonally by 13 million barrels, versus an average 10 million barrel decline. At the end of January, distillate stocks had climbed to 120 million barrels, matching the level of one year earlier.

PRODUCT SUPPLIED [1]

Gasoline

UNUSUAL INCREASE FOR JANUARY. Gasoline deliveries rose year to year in January for the second month in a row. The increase, at 2.2 percent, was unusual when compared with the small declines which had persisted for much of last year, and may have been partly related to unusually warm weather which likely contributed to some short-term increases in travel. With recent confirmation of slower economic growth—preliminary GNP data showed only a half percent annual-rate increase from third to fourth quarter—it does not appear that the recent deliveries increases indicate any shift in the underlying flat performance for gasoline of the past several quarters.

The most recent data on miles traveled, however, have not shown any additional weakening, at least through November. For the most recent available months, year-to-year increases in miles traveled have been running around 3 percent, roughly the same as first half 1989's increase. The preliminary nature of both the deliveries and the miles traveled data, which will both be revised later this year, translate into some uncertainty as to the actual trend in gasoline consumption. Nevertheless, both taken together suggest that consumption continues to be flat.

It should be noted that the data on miles traveled includes diesel vehicles as well as gasoline vehicles. However, since 85 percent of highway fuel use is in the form of gasoline, travel as an indicator of gasoline use is biased only slightly by the somewhat higher estimated growth for diesel traffic than for gasoline traffic. Diesel's role has been increasing, however. Since 1985,

API ESTIMATES

	JANUARY	
	Million B/D	Percent Change
Total domestic deliveries	16.9	(1.5)
Crude production[2]	7.4	(5.5)
Total imports[3]	9.1	14.5
Stocks (million bbl)[3]	1,035	(2.2)

highway diesel consumption has grown about 20 percent, while gasoline use has risen only 7 percent. This pattern is believed to have continued more recently, with recent months' growth in highway diesel estimated at 1.5 to 2 percent despite gasoline being more or less flat.

Distillates

WARM WEATHER CUTS CONSUMPTION. Following December's record-setting, 30-percent-colder-than-normal weather, January, averaging 25 percent warmer than normal, provided a sharp contrast. Just as December's extremely cold weather brought about a strong surge in distillate demand, January's warmer weather served as a moderating influence on consumption. In fact, although distillate deliveries more commonly increase between December and January, this January's deliveries fell by over 800 thousand B/D or 20 percent from December's level.

Year to year, January's deliveries declined 3.6 percent or about 120 thousand B/D. Since January a year ago was also unusually warm, the effect of weather on the year-to-year comparison is lessened. We estimate that this year's even warmer weather reduced distillate demand by 100 to 150 thousand B/D from a year ago.

Continued, though only moderate, growth in the on-highway diesel sector, partially offset the weather-related decline in heating use. With the slower economic growth and industrial output over the past several months, fuel use in this sector is believed to be growing at only about 20 to 25 thousand B/D year to year. Nevertheless, this is one of the main factors contributing to the underlying growth in distillate demand now estimated at 1 percent or less.

Residual Fuel Oil

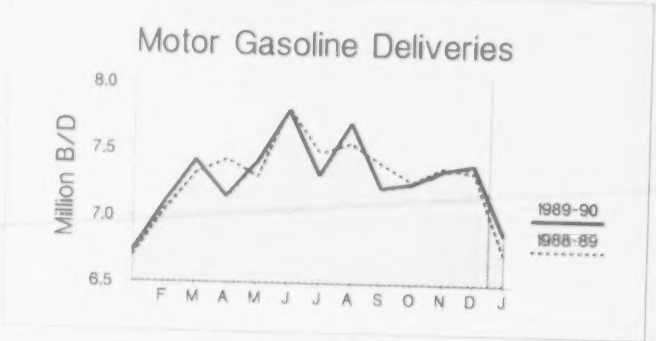
DELIVERIES RESUME THEIR DECLINE. Residual fuel oil deliveries reverted to their previous pattern of year-to-year declines in January. January's 8.3 percent decline contrasted with a roughly 4 percent increase for December, when the cold weather bolstered demand from electric utilities and other users. For August through November, residual fuel oil deliveries had been showing monthly declines averaging 15 percent, year to year.

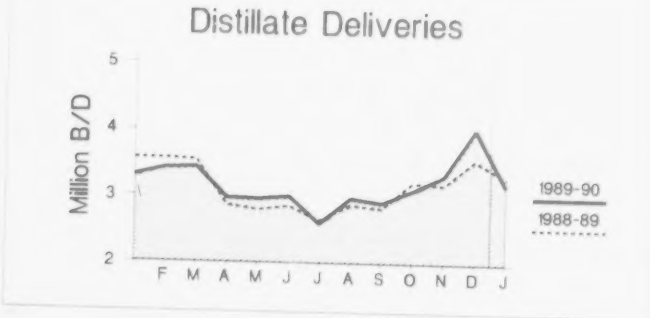
Reduced demand from electric utilities due to the warm weather is believed to be one of the major factors contributing to the decline. Generation, which had jumped more than 10 percent, year-to-year, in December, is estimated to have been roughly only equal to the year-ago level this January. In addition, the price advantage that domestic bunker sources had previously had over foreign supplies appears to have diminished recently, likely reducing or eliminating any year-to-year increases in this sector of deliveries.

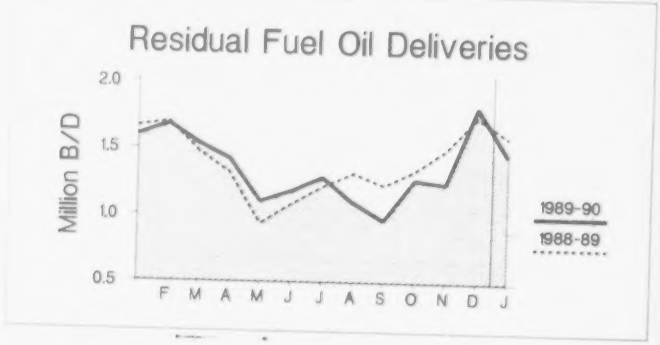
Kerosine Jet Fuel

GROWTH MODERATES FROM DECEMBER. Deliveries of kerosine jet fuel rose 1.7 percent in January—in sharp contrast to December's roughly 20 percent surge. That large increase had apparently been due to use in extending distillate supplies in the face of extremely high weather-related demand. January's much smaller rise is more within the range of kerosine jet fuel deliveries' increases of the recent past, and probably even a bit below underlying consumption trends.

That trend is believed to be similar to the estimated growth in miles flown of around 3 percent in recent months. Though weaker than the roughly 4 percent increase of 1988, air traffic growth has likely picked up slightly from rates which had been nearly flat as recently as mid-1989.







Other Oils

DELIVERIES FALL 6 PERCENT.

Deliveries of "other oils" fell 6.1 percent in January, contrasting with December's unusual 4 percent increase but otherwise roughly in line with recent trends. Before December's year-to-year increase, deliveries had been showing year-to-year declines averaging around 5 percent. Apparently, deliveries, already declining in part because of continued weak deliveries for petrochemical feedstocks, were also weakened in January by weather-related, lower-than-normal demand for propane.

Propane is one of the principal components of liquefied petroleum gases, or LPGs, which in turn are one of the major constituents of "other oils" deliveries. LPGs accounted for about 40 percent, or nearly 1.7 million B/D, of last year's 4.1 million B/D annual total deliveries of "other oils". While propane accounts for more than half of LPG deliveries, ethane accounts for a little less than a third, and butanes the remainder. Nearly two thirds of LPG supply is extracted from natural gas streams, with the rest coming from net refinery production and imports.

Chemical use accounts for more than half of LPG deliveries; residential and commercial heating (essentially propane) is the next largest single category at about a quarter of LPG usage. It should be noted that LPGs used as refinery inputs are not included in "LPG deliveries" in order to avoid double counting. For example, butane used in gasoline blending, estimated at about 300 thousand B/D, is counted as gasoline deliveries rather than LPG deliveries. Thus, last year's tightening of vapor pressure restrictions, though it had the effect of reducing butanes used in gasoline blending, resulted in an apparent increase in butane deliveries as some of this product was diverted to non-refinery uses.

LPGs as a group have contributed little to overall petroleum demand growth in the past several years. Since 1985, LPG deliveries have increased only about 3.5 percent, while total deliveries have grown about 10 percent.

SUPPLY

Production

OIL DRILLING FALLS, GAS INCREASES.

January's crude oil production continued to decline, falling 430 thousand B/D versus a year ago. Alaska contributed about 75 thousand B/D to the 5.5 percent decline. However, most of the decline came in the lower 48, where the effects of diminished drilling and well servicing of the past several years have continued to reduce production levels.

The decline in oil well completions continued in 1989, though for natural gas, drilling increased for the second year in a row. According to API's recently-released *Quarterly Completion Report*, oil well completions fell 23 percent to a level only one third of that of 1985. Total completions fell 13 percent.

For gas, last year's 9 percent increase in drilling apparently reflects a perception that natural gas markets have been approaching a greater balance between supply and demand than existed earlier in the 1980s. Even with the increases of the past two years, however, natural gas completions were still down by one quarter from 1985 levels. What increases there have been for natural gas drilling have been concentrated in development drilling; in 1989, exploratory gas completions declined an estimated 8 percent. Exploratory oil completions, however, fell much more, dropping 33 percent.

Imports

REPLENISHMENT BOLSTERS IMPORTS.

With domestic production continuing to decline and consumption either growing or holding nearly steady, imports have continued to set records on a nearly regular basis in the past year or two. For January, imports exceeded 9 million B/D for the first month in more than 12 years. January's total imports also accounted for an all-time high monthly share of domestic deliveries—53.9 percent, versus the previous high of 51.8 percent reached in both March and July of 1977. The month's imports were unusually high compared with recent trends, being more than 1 million B/D above what would have been needed to supply January's deliveries in conjunction with typical inventory changes.

Though temporary developments pushed imports higher in January, longer-term trends have moved the U.S. supply/demand balance closer to the position where such short-term deviations can easily put total imports above the 50 percent mark. In 1989, total imports averaged 46 percent of domestic usage for the year as a whole.

Product imports rose 13 percent in January from a year ago to nearly 2.9 million B/D, reflecting efforts to replenish supplies after December's extraordinary demand. Distillate imports jumped by nearly two thirds to over half a million B/D, also the highest monthly level ever, and kerosine jet fuel imports rose by two thirds to nearly 140 thousand B/D. Imports of gasoline and components were about 60 percent higher than last January at over 600 thousand B/D, also the highest level ever. Residual fuel oil imports, however, fell 19 percent to 715 thousand B/D due to lower demand and the availability of domestic supplies.

Refinery Operations

DISTILLATE OUTPUT CONTINUES HIGH IN JANUARY.

Recovering from temporary disruptions due to extremely cold weather on the Gulf Coast near the end of December, refineries continued to produce record amounts of distillate fuel oil in January. The month's production approached 3.2 million B/D, up over 6 percent year to year and the highest output for January since the late 1970s. December's production, despite the disruptions due to weather and other factors, had also set a recent-year record of over 3.3 million B/D. Residual fuel oil output increased 23 percent or about 220 thousand B/D, enabling a rebuilding of inventories which had been drawn down substantially in December.

Total input to distillation units was up 1 percent over last January, but because of the emphasis on replenishing distillate supplies, production of other light products declined. Gasoline and kerosine jet fuel production each declined about 2 percent versus a year ago. However, by the end of the month, yields for light products were returning to more typical patterns for January.

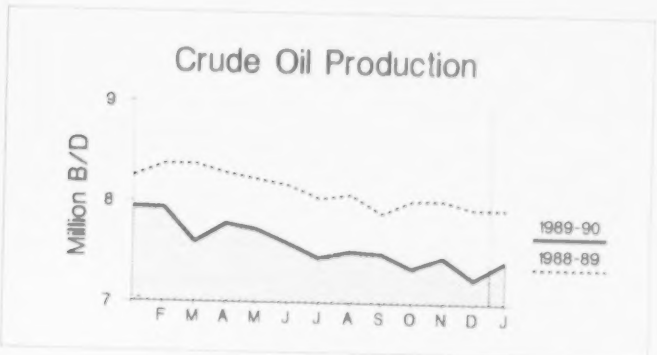
Utilization for the month, as traditionally calculated, averaged 87.5 percent, up more than a point from a year ago. Calculated on the basis of capacity normally in actual operation, the rate would have been closer to 91 percent.

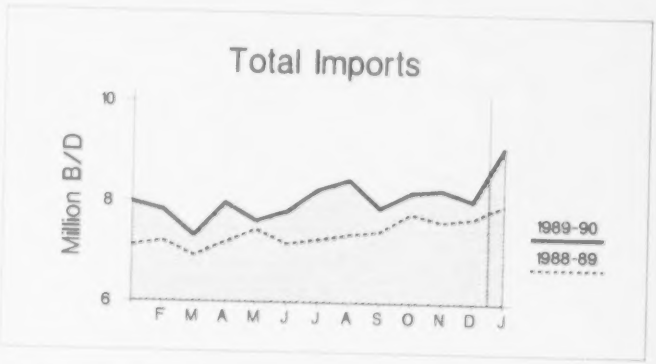
Inventories

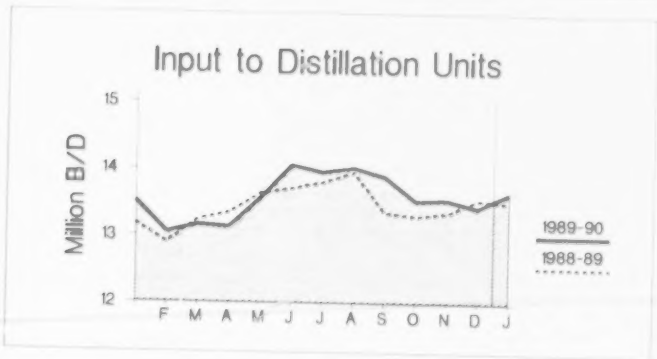
STOCK BUILD CONTRASTS WITH TYPICAL DECLINE.

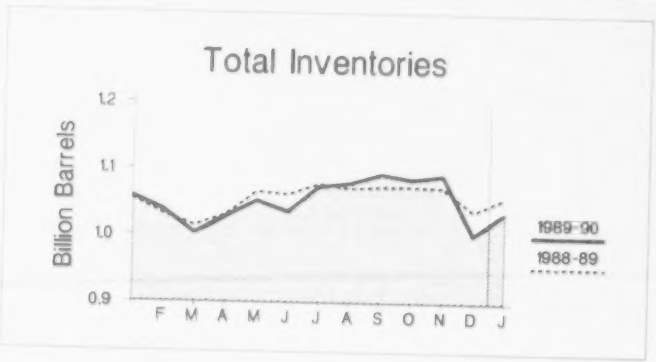
Though total inventories typically decline in January, the month's high level of imports, along with demand moderated by warmer weather, resulted in a substantial inventory build of 33 million barrels. For the previous five years, January's stock change has averaged an 8 million barrel decline. With the unusually large increase, inventories were only about 2 percent lower than at the end of January 1989.

Most of the increase took place in product inventories. Distillate stocks, in particular, rose 13 million barrels—contrasting with an average 10 million barrel decline in previous Januarys. After December's 14 million barrel draw—the largest for that month in six years—January's contraseasonal increase brought distillate inventories to 120 million barrels, the same level as a year ago. Gasoline stocks rose 17 million barrels, somewhat more than average for January, to 231 million barrels.









1/ Total supply, i.e., production plus imports adjusted for net stock change is equal to total products supplied from primary storage. Total products supplied from primary storage less exports is equal to total domestic products supplied. Information contained in this report is derived from information published in the API Weekly Bulletin and is based on historical analysis of the industry. All data reflect the most current information available to the API and include all previously published revisions.

2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 580 million barrels as of January 31, 1990).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	JANUARY			YEAR-TO-DATE		
	1990[1]	1989[2]	% Change	1990[2R]	1989[2]	% Change
Products Supplied:						
Total motor gasoline	6,881	6,732	2.2			
Finished leaded motor gasoline/*	505	980	(48.5)			
Finished unleaded motor gasoline/*	6,376	5,752	10.8			
Naphtha-jet	175	174	0.6			
Kerosine-jet	1,337	1,315	1.7			
Distillate fuel oil	3,178	3,296	(3.6)			
Residual fuel oil	1,463	1,596	(8.3)			
All other oils[4]	4,123	4,392	(6.1)			
Reclassified[5]	-210	-293	(28.3)			
Total domestic products supplied	16,947	17,212	(1.5)			
Exports	881	760	15.9			
Total products supplied	17,828	17,972	(0.8)			
Supply:						
Domestic production:						
Crude oil[6]	7,420	7,850	(5.5)			
Natural gas liquids	1,493	1,653	(9.7)			
Other supply[7]	836	1,100	(24.0)			
Total domestic supply	9,749	10,603	(8.1)			
Imports:						
Crude oil, total[8]	6,276	5,456	15.0			
Canadian	528	633	(16.6)			
Other	5,748	4,823	19.2			
Products, total	2,857	2,519	13.4			
Residual fuel oil	715	877	(18.5)			
Other	2,142	1,642	30.5			
Total imports	9,133	7,975	14.5			
Total supply	18,882	18,578	1.6			
Stock change, all oils	1,054	606	*****			
Refinery Operations						
Input to crude oil distillation units	13,651	13,510	1.0			
Operable capacity	15,604	15,689	(0.5)			
Refinery utilization (%)[9]	87.5	86.1	1.6			
Crude oil runs	13,492	13,330	1.2			

Stocks (millions bbls.)	1990	1989	1989[2]	% Change from	
	Jan.31[10]	Dec.31[10]	Jan.31	Previous Month	Year Ago
Crude oil*	350.0	342.0	333.3	2.3	5.0
Unfinished oils	104.3	104.6	102.4	(0.3)	1.9
Total motor gasoline/**	230.8	213.9R	248.5	7.9	(7.1)
Finished leaded motor gasoline/*	16.7	17.4	41.5	(4.0)	(59.8)
Finished unleaded motor gasoline/*	173.7	159.7R	164.2	8.8	5.8
Naphtha-jet	6.4	5.9	6.6	8.5	(3.0)
Kerosine-jet	37.2	35.6	37.9	4.5	(1.8)
Distillate fuel oil	120.4	107.4R	120.3	12.1	0.1
Residual fuel oil	49.8	43.3	47.0	15.0	6.0
All other oils	136.2	149.7R	162.0	(9.0)	(15.9)
Total all oils	1,035.1	1,002.4R	1,058.0	3.3	(2.2)

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Source:
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
/6 API estimate; includes lease condensate.
/7 Includes Unaccounted-for crude oil, Processing gain and Field Production of other hydrocarbons and alcohol.
/8 Data do not include oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR.
/9 Represents "Input to crude oil distillation units" as a percent of "Operable capacity".
/10 Derived by interpolating API weekly stocks data.
/R Revised.
/* Included in motor gasoline.
/** Includes finished leaded, finished unleaded, and motor gasoline blending components stocks.

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Monthly Statistical Report

Prepared by the Finance, Accounting, and Statistics Department

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FEBRUARY 1990

SUMMARY

February's total deliveries were substantially weaker than recent trends would have indicated. Though total deliveries have been showing moderate declines in most of the past eight months, February's 6.5 percent, more than 1 million B/D drop was considerably more than the 1 to 3 percent, year-to-year decreases typical since mid-1989. All major products shared in the month's decline. Excluding residual fuel oil, the underlying trend in consumption over the past several months is estimated at about a one percent decline.

For distillate fuel oil, unusually warm weather was at least partly responsible for that product's decline of over 7 percent; even so, deliveries were somewhat lower than might have been expected, based on weather and previous trends. Gasoline deliveries dropped a little over 3 percent despite unusually favorable driving conditions for a winter month, and kerosine jet fuel deliveries also fell even though air traffic continued to increase. Deliveries of residual fuel oil and "other oils" both continued their patterns of decline which have been apparent since the latter half of last year, with substantial drops of 15 percent and 7 percent, respectively.

February's 8 million B/D of total imports, roughly 1 million B/D lower than January's recent-year high, still amounted to 48 percent of domestic deliveries. Though import dependency as calculated on a monthly basis makes large swings—in 1989, the figure ranged from lows near 40 percent to over 50 percent in July—the longer-term trend has been steadily upwards over the past four years. By last year, total imports' share of domestic deliveries, at 46 percent, had grown to a size nearly half again as large as in 1985.

Crude oil production in February fell nearly 7 percent from a year ago, with roughly one fifth of the 537 thousand B/D decline occurring in Alaska.

Refinery activity, despite February's weak deliveries, was unusually high for the month, with input to distillation units rising over 5 percent versus a year ago. Gasoline output's 5.2 percent increase, combined with the decline in deliveries, contributed to a 16 million barrel gain in that product's inventories for the month. Even with a roughly 2 percent decline in distillate output, softness in deliveries left month-end distillate stocks at 115 million barrels, 5 to 7 million barrels above levels for the same month in the previous two years.

PRODUCT SUPPLIED [1]

Gasoline

DELIVERIES FALL UNUSUALLY LARGE 3.2 PERCENT.

The pattern of declines for gasoline deliveries apparent during most of the second half of last year resumed in February. That pattern had been interrupted in December and January, when deliveries had risen 1 to 2 percent, year to year—in contrast with the latter part of 1989 when deliveries had been generally weak and decreasing slightly. For February, deliveries reverted to the decline pattern, though the 3.2 percent drop for the month appears greater than can be explained by estimated consumption trends.

Short term divergence between deliveries and consumption, however, has not been uncommon, and the events of the past three months provide one illustration of this. Even when there are no practical difficulties in measurement, deliveries can differ from actual consumption because of changes in storage by distributors and end users, for which data are not normally available. Imprecision and inaccuracies in the data can also contribute to the divergence.

In December, extremely harsh weather could be expected to have discouraged less essential travel, depressing actual gasoline consumption. Recently-available data on miles traveled, in fact, showed only a 0.3 percent increase for that month, contrasting with an average increase of about 3 percent in highway travel for the previous five months.

Gasoline deliveries, however, showed the reverse of that pattern, rising about 1 percent in December after falling 0.6 percent on average for July to November. The disparity between travel and gasoline deliveries in December may have been at least partly the result of purchases beyond current needs by some concerned that the high demand on refineries to produce heating oil might have had a tightening effect on gasoline supplies.

	API ESTIMATES FEBRUARY		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	16.6	(6.5)	16.8	(3.8)
Crude production[2]	7.2	(6.9)	7.3	(6.6)
Total imports[3]	8.0	2.5	8.7	9.6
Stocks (million bbl)[4]	1,045	0.7	na	na

Just as December's severe weather discouraged travel, January's unusually mild weather likely put travel above trend for the month, explaining at least part of that month's deliveries increase. But if weather helps to explain January's increase in deliveries, February's also-mild weather would have been expected to have had a roughly similar positive effect. For this reason, it appears that February's deliveries were likely weaker than actual consumption, which may have even increased slightly, year to year. The underlying trend, however, is still believed to be flat to slightly declining.

Distillates

WARM WEATHER WEAKENS DEMAND. Weather for the main part of the winter (December through February) has *averaged* close to normal—but it has hardly been an "average" winter once the variation around that average is taken into account. Following the coldest December in more than 70 years for the Northeast and an extremely mild January, February, too, turned out to be much warmer than normal, with a consequent softening of distillate deliveries.

In February, distillate deliveries dropped 7.2 percent or 250 thousand B/D, with heating degree days for the month averaging more than 20 percent warmer than last February. With the warmer weather estimated to have reduced heating oil demand by around 200 thousand B/D from a year ago and small but positive growth in on-highway diesel and industrial usage, February's deliveries decline, as with gasoline, appears to have been greater than that indicated for consumption.

Residual Fuel Oil

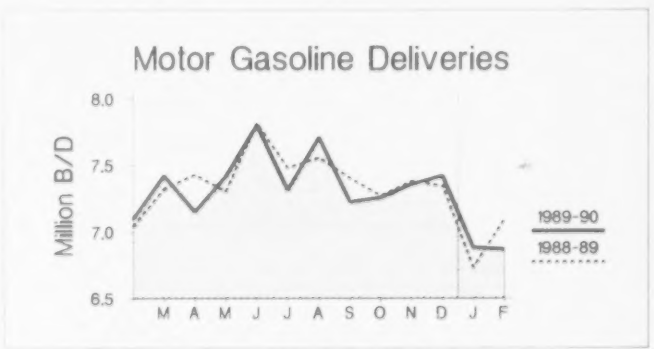
FUEL SWITCHING KEEPS DELIVERIES IN DECLINE. Residual fuel oil continued weak in February, falling 15 percent year to year. Except for an increase in December related to the cold weather, which added to demand for residual fuel oil both as a heating fuel and as an input for oil-fired electricity generation, residual fuel oil has been showing year-to-year declines since last August. In February, electric utility demand is believed to have been weak for the second month in a row due in part to a weather-related drop in electricity generation. February's electricity output is estimated to have declined about 4 percent, year to year.

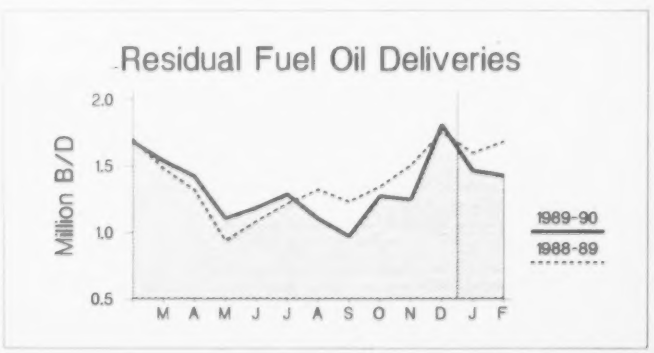
However, even without the warmer weather, residual fuel oil use in the electric utility and industrial sectors has continued to be depressed because of its cost disadvantage relative to natural gas. Spot residual fuel oil prices in February averaged roughly 20 percent or 50 cents per million BTU higher than a year ago, while spot gas prices were roughly even. Thus, though prices paid by utility and industrial users depend in part on local market conditions, existing contracts, and transportation costs, users with fuel switching capability have apparently continued to favor natural gas over residual fuel oil.

The preference for gas over residual fuel oil was clearly apparent in the fourth quarter (most recent data available). Though electricity generation rose 6.7 percent for the quarter (in part because of strong electricity demand in December), residual fuel oil consumption at electric utilities fell more than 14 percent. Natural gas consumption for generation, however, jumped nearly 30 percent for the same period.

Kerosine Jet Fuel

TRAFFIC UP, DELIVERIES DOWN. Although kerosine jet fuel deliveries declined by 4.5 percent in February, consumption is still believed to be increasing moderately. Adjusting for a spike in December deliveries (attributed to blending with heating oil), the trend in product supplied over the past year has averaged about a 2 percent increase, compared with an estimated growth in airline seat miles of 1.8 percent.





Air fare discounts at home have contributed to a moderate acceleration in domestic travel in recent months. However, it is international travel which has been the driver for most of the industry's growth. International passenger mileage surged by approximately 18 percent in January (the latest month for which data are available) compared with a 3.5 percent escalation in domestic travel. For 1989, international passenger miles rose an estimated 11.2 percent while domestic travel grew by 0.9 percent. Airlines have been able to absorb some of the growth the past few months by filling otherwise empty seats. On average, load factors have been up nearly a full point since November.

Growth in international passenger mileage (now over one quarter of the total) has resulted not only from a rise in passenger enplanements, but also from an ongoing trend in which the average length of flights has been increasing. Changing destination points for international travel cast light on why flights have been getting longer. Transportation Department data show that while travel on Atlantic routes represented the largest share of international travel last year with 49.5% of airline seat miles, trans-Pacific travel made marked increases in its share of the total. In 1989, capacity on Pacific routes grew by over 23 percent compared to 7 percent and 4 percent growth on Atlantic and Latin American routes, respectively. Trans-Pacific seat miles now make up nearly 35 percent of the international total (up from 29 percent in 1985).

The large increases in international travel early this year and significant compositional changes in international flight patterns last year can be explained in part by weakened trans-Atlantic travel last year following the Pan-Am/Lockerbie, Scotland disaster. The 6.5 percent growth in passenger miles on Atlantic routes in 1989 was significantly smaller than the 18-20 percent growth witnessed in the previous two years.

Other Oils

DECLINE CONTINUES IN FEBRUARY. In February, deliveries in the "other oils" category continued the decline which has persisted since the middle of last year. However, the estimated 7.1 percent decrease was somewhat larger than the average for recent previous months—for the second half, deliveries of "other oils" had fallen about 4 percent.

February's unusually warm weather undoubtedly cut into propane consumption for heating purposes, and demand for petrochemical feedstocks continued to be weaker than a year ago. Ethane, deliveries of which had fallen 10 percent last year partly as a result of economics favoring heavier feedstocks, was still at a cost disadvantage compared with petroleum-derived feedstocks. Naphtha and gasoil deliveries for petrochemical use, however, are also believed to have declined from a year ago, continuing last year's drop which had averaged 3 percent.

With spring approaching, deliveries of asphalt, which account for close to one-half million B/D or approximately 11 percent of "other oils" deliveries, normally begin to rise. Asphalt deliveries have increased by almost 12 percent in the past 6 years—paving asphalt, which accounts for 88 percent of demand, rose 22 percent while non-paving asphalt, used mainly in construction materials, fell 31 percent.

Since 1984 the total mileage of paved roads—94 percent of which have asphalt surfaces—has increased only about 4 percent. But because of the deteriorating condition of the roads, most highway funds have been spent on resurfacing and widening, and, with heavier traffic, the thickness of the new surface has increased. Because weather conditions impact heavily on highway construction, asphalt usage is typically 2.5 to 3 times higher between May and October than during the rest of the year.

SUPPLY

Production

FALLOFF IN OUTPUT UNABATED. Domestic crude oil production fell 6.9 percent, or more than one-half million B/D in February. Alaska's output decline of 6 percent accounted for roughly one-fifth of the overall drop.

Though the slippage in Alaskan production has been evident for the past year or two, the bulk of the decline in domestic crude oil production since 1985 has been in the onshore lower 48. From 1985 to 1989, onshore lower 48 output fell more than 20 percent, accounting for nearly 90 percent of the 1.4 million B/D decline in domestic crude oil output—the result of the lower level of drilling and of servicing existing wells following the major oil price drop of 1986.

But offshore production has declined as well. Over the same period, offshore production fell about 10 percent to 1.1 million B/D, with an increase in Alaskan offshore output only partially offsetting a decline for offshore lower 48. As a result, the offshore's share of domestic crude oil output has remained in the 14 to 15 percent range, though according to government estimates, nearly 40 percent of undiscovered recoverable oil in the U.S. lies offshore.

Imports

DOWN FROM JANUARY BUT HIGHER THAN 1989 AVERAGE. February's imports subsided by roughly 1 million B/D from January's recent-year high, but, at 8.0 million B/D, still slightly exceeded last year's average. Total imports' share of domestic deliveries also dropped to 48 percent from January's record high.

Import dependency as calculated on a monthly basis can fluctuate considerably—last year's monthly percentages ranged from lows near 40 percent to a high of over 50 percent in July. Though a substantial part of the variability comes from normal seasonal variation in both imports and deliveries, short-term developments such as unusual weather or shifts in inventory strategies play a major role as well. But although the data can be variable on a short term basis, the longer-term trend is still apparent. Since 1985, total imports' share of domestic deliveries has increased by an average 3.5 percentage points per year as demand grew and crude oil production declined.

February's product imports fell 13.5 percent, year to year, after January's surge. Imports of gasoline and components were down 128 thousand B/D to 362 thousand B/D, at the low end of the range of the past twelve months but coming after extremely high imports in January of around 600 thousand B/D. Distillate

imports, however, though down from January, were still up slightly from last February at 332 thousand B/D. Residual fuel oil imports continued to be weak due to a combination of lower demand and the relative cost of imports versus domestic supplies, falling 222 thousand B/D to 641 thousand B/D.

Refinery Operations

GASOLINE OUTPUT JUMPS 5 PERCENT.

Input to distillation units jumped 5.2 percent from a year ago in February, with the increased output continuing to replenish supplies after December's extraordinarily high demand. Utilization as traditionally calculated averaged close to 88 percent of "operable", i.e. reported, capacity, but based on capacity in actual operation utilization exceeded 90 percent—substantially higher than the 84 to 87 percent rates for same month in the previous three years.

As a result of high refinery runs, gasoline output rose 5.2 percent. Distillate output, reflecting the drop in deliveries and inventories which were already above February levels for recent previous years, declined about 2 percent. Residual fuel oil output continued strong, rising 14 percent over last February.

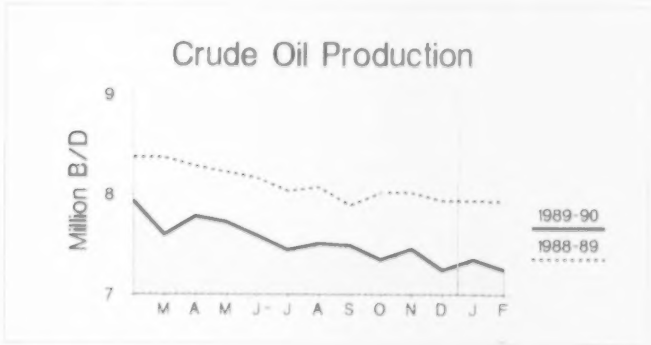
Inventories

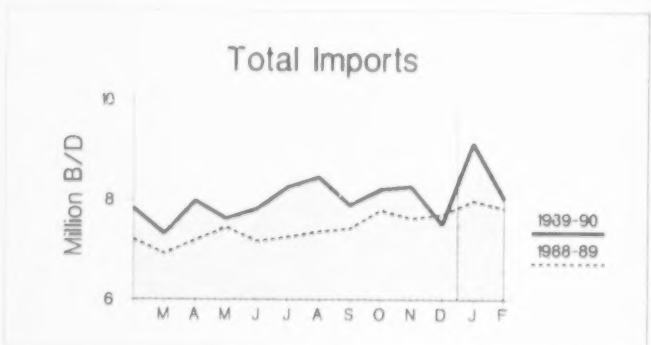
CONTRARY TO USUAL PATTERN, STOCKS RISE.

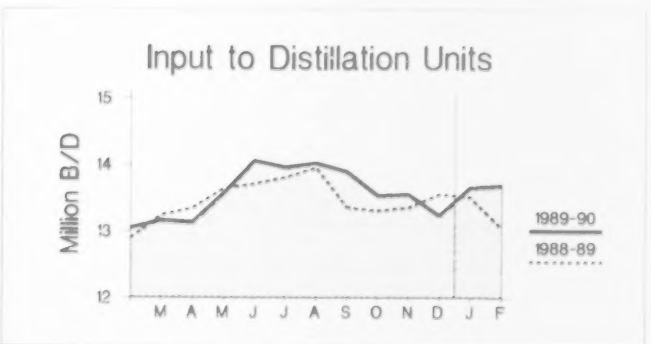
For only the second time in the past ten years, total stocks rose during February. The 9 million barrel increase contrasts with an average decline of 29 million barrels for the same month in the previous five years. The increase brought inventories to a level slightly ahead of a year ago for the first time since November.

Because of continued warm weather, distillate stocks declined only 6 million barrels, considerably less than the previous-year average of about 19 million barrels. At 115 million barrels, distillate inventories ended the month 5 to 7 million barrels higher than for the same month in the previous two years. Gasoline stocks rose 16 million barrels, continuing to replenish inventories that had been drawn down earlier as refineries had emphasized production of distillate in response to December's high demand. At month-end, gasoline inventories were roughly equal to the level one year earlier.

Crude stocks fell by 6 million barrels from January's level of nearly 350 million barrels, but were still 3 percent higher than a year ago.







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2/ Includes lease condensate.

3/ API data do not include crude oil imported for the Strategic Petroleum Reserve (SPR) nor crude oil stocks held in the SPR (according to the U.S. Department of Energy, the SPR held approximately 581 million barrels as of February 28, 1990).

ESTIMATED UNITED STATES PETROLEUM BALANCE
(Daily Average in Thousands of 42 Gallon barrels)

Products Supplied/Supply From Primary Storage	FEBRUARY			YEAR-TO-DATE		
	1990[1]	1989[2]	% Change	1990[3R]	1989[2]	% Change
Products Supplied:						
Total motor gasoline	6,868	7,095	(3.2)	6,875	6,904	(0.4)
Finished leaded motor gasoline/*	467	975	(52.1)	487	978	(50.2)
Finished unleaded motor gasoline/*	6,401	6,120	4.6	6,388	5,926	7.8
Naphtha-jet	184	200	(8.0)	179	186	(3.8)
Kerosine-jet	1,270	1,330	(4.5)	1,316	1,322	(0.5)
Distillate fuel oil	3,161	3,411	(7.3)	3,170	3,351	(5.4)
Residual fuel oil	1,425	1,681	(15.2)	1,452	1,636	(11.2)
All other oils[4]	3,867	4,161	(7.1)	4,007	4,282	(6.4)
Reclassified/[5]	-161	-113	42.5	-186	-207	(10.1)
Total domestic products supplied	16,614	17,765	(6.5)	16,813	17,474	(3.8)
Exports	985	875	12.6	930	815	14.1
Total products supplied	17,599	18,640	(5.6)	17,743	18,289	(3.0)
Supply:						
Domestic production:						
Crude oil/[6]	7,248	7,785	(6.9)	7,301	7,819	(6.6)
Natural gas liquids	1,437	1,601	(10.2)	1,466	1,629	(10.0)
Other supply[7]	1,208	704	71.6	1,022	912	12.1
Total domestic supply	9,893	10,090	(2.0)	9,789	10,360	(5.5)
Imports:						
Crude oil, total[8]	5,730	5,178	10.7	6,045	5,324	13.5
Canadian	568	622	(8.7)	553	627	(11.8)
Other	5,162	4,556	13.3	5,492	4,697	16.9
Products, total	2,288	2,646	(13.5)	2,613	2,579	1.3
Residual fuel oil	641	863	(25.7)	687	870	(21.0)
Other	1,647	1,783	(7.6)	1,926	1,709	12.7
Total imports	8,018	7,824	2.5	8,658	7,903	9.6
Total supply	17,911	17,914	0.0	18,447	18,263	1.0
Stock change, all oils	312	-726	****	704	-26	****
Refinery Operations						
Input to crude oil distillation units	13,691	13,011	5.2	13,676	13,273	3.0
Operable capacity	15,614	15,694	(0.5)	15,609	15,691	(0.5)
Refinery utilization (%)[9]	87.7	82.9	5.8	87.6	84.6	3.5
Crude oil runs	13,518	12,774	5.8	13,510	13,066	3.4

Stocks (millions bbls.)	1990		1989[2]	% Change from	
	Feb. 28[10]	Jan. 31[10]	Feb. 28	Previous Month	Year Ago
Crude oil/[8]	343.4	349.6R	332.7	(1.8)	3.2
Unfinished oils	108.1	104.3	104.7	3.6	3.2
Total motor gasoline/**	246.2	230.7R	247.1	6.7	(0.4)
Finished leaded motor gasoline/*	14.9	16.7	39.5	(10.8)	(62.3)
Finished unleaded motor gasoline/*	186.8	173.6R	164.1	7.6	13.8
Naphtha-jet	6.4	6.4	6.4	0.0	0.0
Kerosine-jet	39.8	36.5R	37.4	9.0	6.4
Distillate fuel oil	114.8	120.4	107.5	(4.7)	6.8
Residual fuel oil	50.0	49.8	46.0	0.4	8.7
All other oils	136.0	138.3R	155.9	(1.7)	(12.8)
Total all oils	1,044.7	1,036.0R	1,037.7	0.8	0.7

/1 Based on API estimated data converted to a monthly basis.
/2 Source: U.S. Department of Energy.
/3 Source: API.
/4 Includes crude losses.
/5 Beginning with January 1981, U.S. Department of Energy began using a new data collection system which encompasses a method to ascertain the amount of product reclassified during the production phase. So that there will be no double counting of these volumes, they are subtracted from the total domestic products supplied.
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SUMMARY

Because of their continued weakness in March, deliveries for the first quarter as whole fell 3.6 percent—a significant drop, compared with the 1.1 percent average decline for the last half of last year, and the largest quarterly decline since 1983. For March, deliveries decreased 3.3 percent. Deliveries of all major products for the month fell except for kerosine jet fuel, which rose only 1.7 percent. Gasoline deliveries declined slightly, while continued warm weather contributed to distillates' nearly 6 percent drop. Deliveries of residual fuel oil and of "other oils" both continued their decreases evident since the middle of last year, falling nearly 7 percent and 6 percent, respectively.

The quarter's weak deliveries were in part the result of unusually mild weather, which averaged about 15 percent warmer than a year ago and accounted for an estimated 2 percentage points of the decline. Fuel switching from residual fuel oil also contributed to the quarter's decrease. Nevertheless, we estimate that slower economic growth has reduced the underlying rate of consumption, even excluding these factors, to around a 1 percent decline.

Crude oil production for the first three months of this year fell about 350 thousand B/D or 4.5 percent against last year's first quarter, even though the comparison was against temporarily reduced production a year ago related to the tanker accident near Valdez. Without the interruption in Alaskan production last March to complicate the comparison, the first quarter decline would have been close to half a million B/D. In the lower 48, where production fell 5.7 percent for the first quarter, output continued to be surpassed by crude oil imports. First quarter crude oil production in the lower 48 averaged 5.5 million B/D, compared with 6.0 million B/D in crude oil imports for the same period.

Though the effect on imports of the first quarter's decline in deliveries would have more than compensated for the drop in domestic crude oil production, imports still rose nearly 9 percent to 8.4 million B/D due to substantial inventory rebuilding during much of the quarter. However, without the quarter's unusually warm weather and the anomaly in the year-to-year comparison for crude oil production, the gap between domestic supplies and consumption would have continued to grow.

Refinery activity in March slowed from February's high level, falling more into line with previously-observed seasonal patterns for that time of year. However, compared with last March, input to distillation units was off only 0.6 percent despite the substantially larger decline in deliveries.

Though product stocks' decrease in March was somewhat larger than average at 28 million barrels, crude oil stocks rose a substantial 22 million barrels to 365 million barrels, the top of their range of the past several years. As a result, total inventories slipped only 6 million barrels, about one-third the recent-year average for the month.

PRODUCT SUPPLIED

Gasoline

DELIVERIES FALL 1.5 PERCENT FOR THE QUARTER.

Gasoline deliveries for March, though declining less than in February, still fell 0.7 percent, year to year. For the quarter, deliveries were off 1.5 percent, more than a percentage point greater than the 0.3 percent decrease for last year's second half. At least part of the greater decline rate may reflect further slackening in consumption, based on economic and other developments.

First, the slowing of economic growth would be expected to have had a moderating influence on travel. Growth in real disposable income had already been slipping in 1989, from 4.5 percent (year to year) in the first quarter to 3.6 percent in the fourth quarter. By the first quarter of this year, preliminary data for the first two months suggest that real disposable personal income rose only 2 to 2.5 percent. Second, prices in this year's first quarter, adjusted for inflation, were roughly 6 percent higher than a year ago, and this also would be expected to have had a small moderating influence on demand.

Unlike what might be inferred from economic developments, available data on travel have shown little, if any, slowing in growth. For January, miles traveled, which had risen 2.8 percent

API ESTIMATES

	MARCH		YEAR-TO-DATE	
	Million B/D	Percent Change	Million B/D	Percent Change
Total domestic deliveries	17.3	(3.3)	17.0	(3.6)
Crude production[2]	7.4	(1.6)	7.4	(4.5)
Total imports[3]	8.0	8.7	8.4	8.9
Stocks (million bbl)[3]	1,054	5.0	na	na